CLAIMS

WHAT IS CLAIMED IS:

1. A semiconductor substrate, comprising:
2 a multitude of hollow microspheres.

2. The semiconductor substrate in accordance with claim 1, wherein
2 the multitude of hollow microspheres comprises a multitude of gas filled ceramic microspheres.
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3. The semiconductor substrate in accordance with claim 1, wherein
2 the multitude of hollow microspheres comprises a multitude of gas filled glass microspheres.

4. The semiconductor substrate in accordance with claim 1, wherein
2 the multitude of hollow microspheres are sintered together.

5. The semiconductor substrate in accordance with claim 2, wherein
2 the multitude of gas filled ceramic microspheres are sintered together.

6. The semiconductor substrate in accordance with claim 3, wherein
2 the multitude of gas filled glass microspheres are sintered together.

7. The semiconductor substrate in accordance with claim 1, wherein
2 the multitude of hollow microspheres are in a hardened matrix.

8. The semiconductor substrate in accordance with claim 2, wherein
2 the multitude of gas filled ceramic microspheres are in a hardened matrix.

9. The semiconductor substrate in accordance with claim 3, wherein
2 the gas filled glass microspheres are in a hardened matrix.

10. The semiconductor substrate in accordance with claim 1, wherein a top surface of the semiconductor substrate is glazed.

11. The semiconductor substrate in accordance with claim 2, wherein a top surface of the semiconductor substrate is glazed.

12. The semiconductor substrate in accordance with claim 3, wherein a top surface of the semiconductor substrate is glazed.

13. The semiconductor substrate in accordance with claim 1, wherein the multitude of hollow microspheres comprise an outer layer of glass.

14. The semiconductor substrate in accordance with claim 2, wherein the multitude of gas filled ceramic microspheres comprise an outer layer of low temperature glass.

15. The semiconductor substrate in accordance with claim 3, wherein the multitude of gas filled glass microspheres comprise a microsphere of high temperature glass and an outer layer of low temperature glass.

16. The semiconductor substrate in accordance with claim 13, wherein the multitude of hollow microspheres with an outer layer of glass are sintered together.

17. The semiconductor substrate in accordance with claim 14, wherein the multitude of gas filled ceramic microspheres with an outer layer of glass are sintered together.

18. The semiconductor substrate in accordance with claim 15, wherein the multitude of gas filled glass microspheres are sintered together.

19. A method for manufacturing a semiconductor substrate, comprising:

combining hollow microspheres with a matrix;

drying the matrix of microspheres; and

forming the matrix of microspheres into a semiconductor substrate.

20. The method in accordance with claim 19, wherein the hollow microspheres comprise gas filled ceramic microspheres.

21. The method in accordance with claim 19, wherein the hollow microspheres comprise gas filled glass microspheres.

22. The method in accordance with claim 19, wherein the drying step comprises firing the matrix of microspheres.

23. The method in accordance with claim 19, further comprising: glazing an upper surface of the semiconductor substrate.